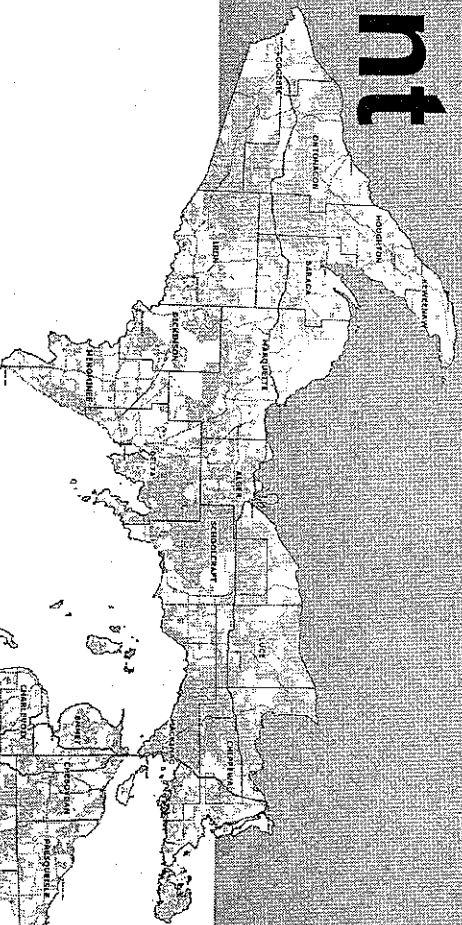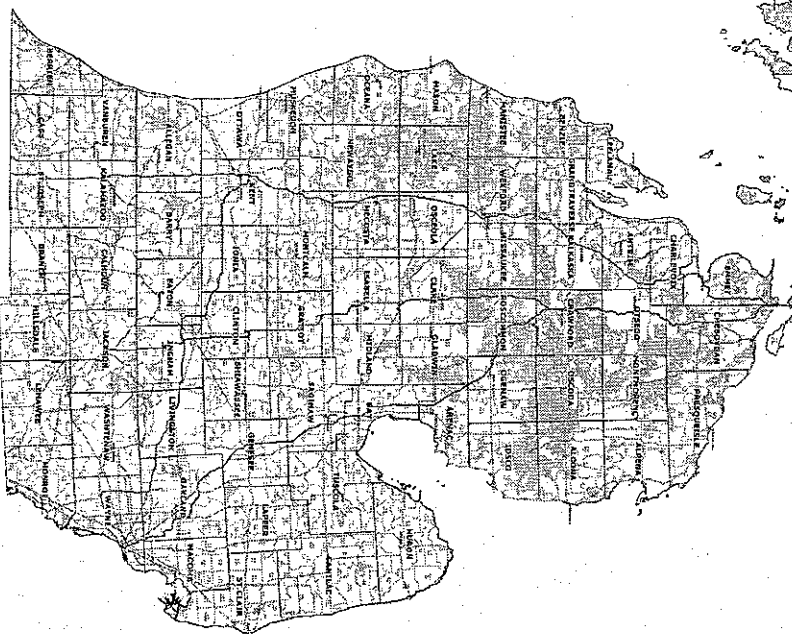# ARRA Broadband Investment

Michigan's Framework
May 2009

ARRA Funding
US Dept. of Commerce – National Telecom & Info. Admin.

$4.7 Billion for Technology Opportunities

- Expanding/improving coverage in unserved/underserved areas
- Providing education, awareness, access, equipment and support
- Improving access and use by public safety agencies
- Stimulating demand, economic growth and job creation
- Upgrading public computer center capacity
- Creating sustainable adoption programs
- Funding broadband mapping (MPSC)
- Assistant Sec. of Commerce may consult with state officials
- At this time, any entity appears to be eligible to apply
- Program guidelines have not been announced

2

ARRA Funding
US Department of Agriculture – Rural Utilities Service

$2.5 Billion for the Broadband, Distance Learning and Telemedicine Program

◆ Funding for existing loan, grant and loan/grant programs

◆ Anticipate majority of funds to be made available for grants

◆ Program usually disperses monies directly to providers
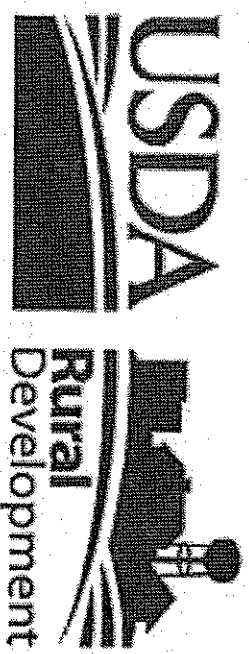
*Final grant criteria for these programs is expected in Summer 2009

ARRA Funding
A Key Moment for Michigan

*Michigan's ARRA broadband funding requests total over $2 Billion for competing projects; pooling these will:*

◆ Enable statewide investment with long-term benefits

◆ Bring broadband to every corner of the state

Broadband in Michigan

ARRA funding provides our first real opportunity to bring broadband to every corner of the state...

- Leveraging investment through collaboration
- Sustainability through reduced recurring costs
- Leveraging the network as a platform
- Enabling higher productivity services
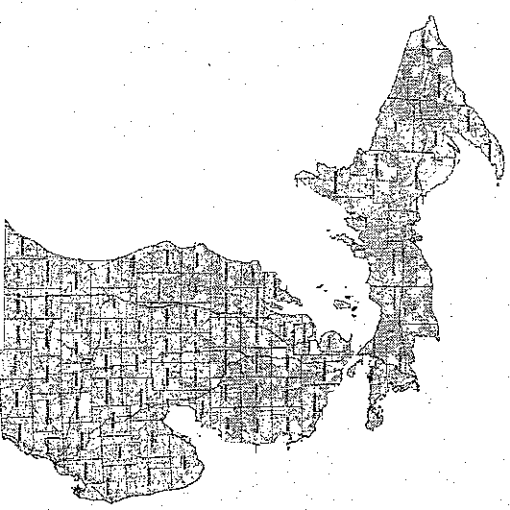
Traditional Deployment Models
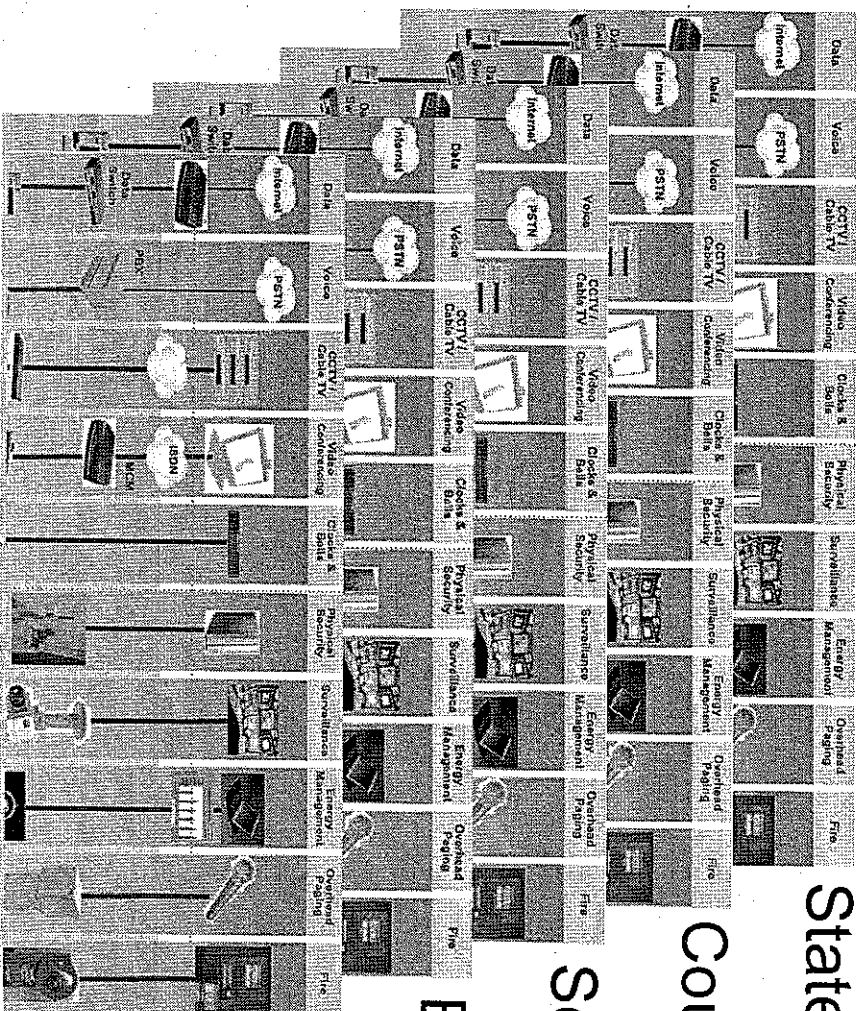
State Government

County Government

School Districts

Emergency/Public Safety

Libraries

Many Independent Networks

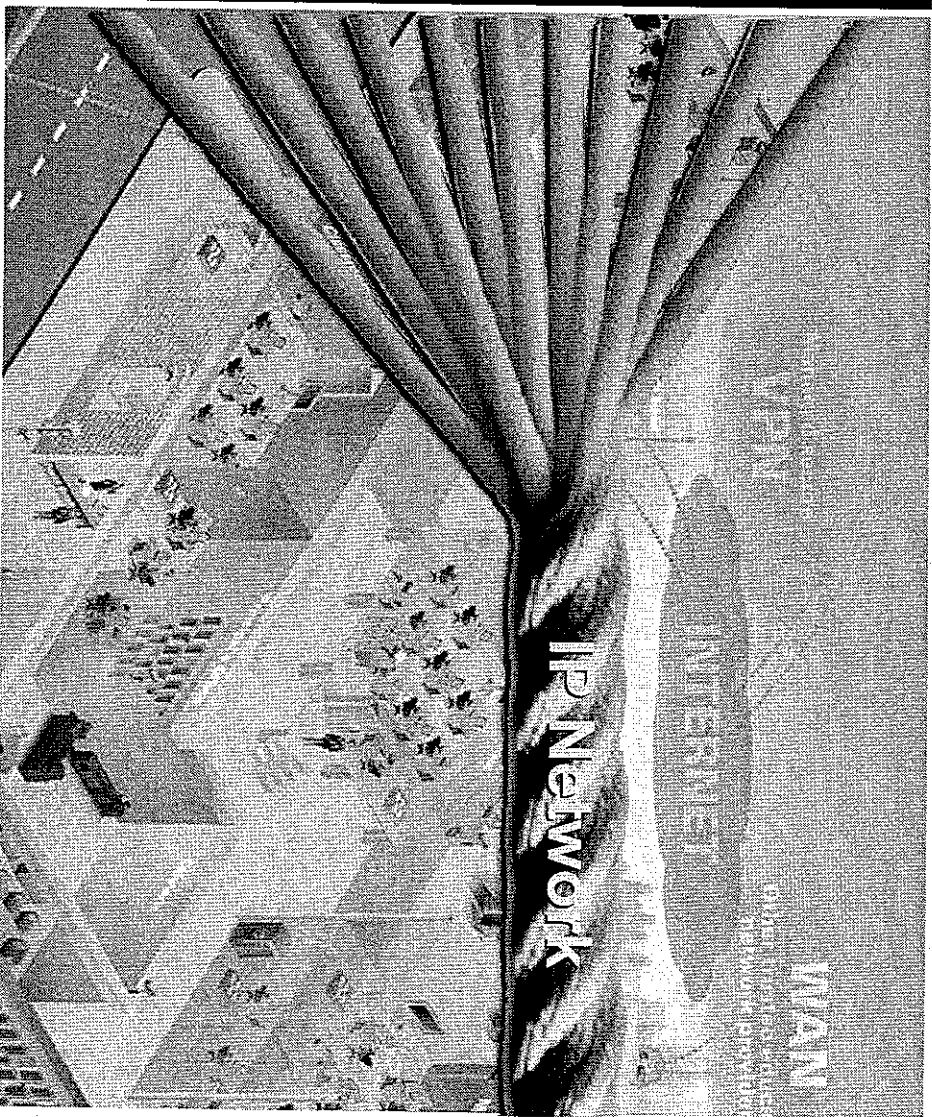# The Power of Convergence

Data

Voice

Video Streaming

Video Conferencing

PA (Intercom)

Video Monitoring
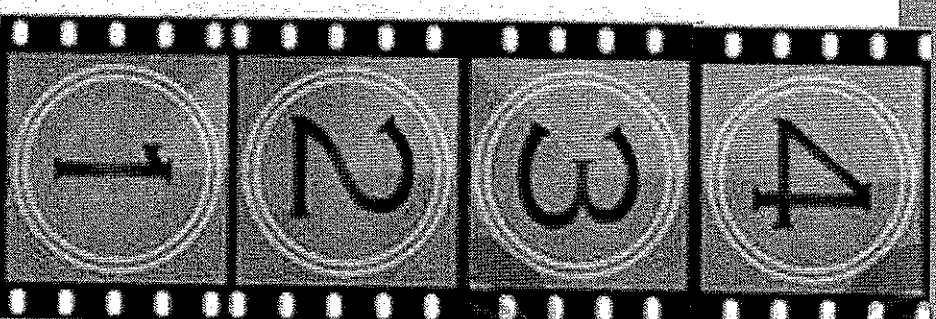
Building Controls

Clocks & Bells

IP Network

WAN

Michigan's Statewide Vision

4-3-2-1 Framework

- $\underline{4}$ Goals
- $\underline{3}$ Legs
- $\underline{2}$ Underlying Principles
- $\underline{1}$ Unified Network for Michigan

Michigan's Statewide Framework

4 Goals

- **Goal 1**: Expand and upgrade broadband service to unserved/underserved populations across the State

- **Goal 2**: Transform Michigan's economic competitiveness by making affordable broadband accessible to any business throughout the state

- **Goal 3**: Ensure a better, more efficient government for the 21st century

- **Goal 4**: Strengthen Michigan's ability to monitor borders and critical infrastructure
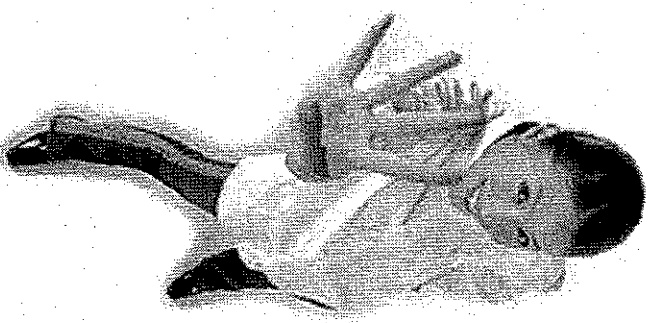
Michigan's Statewide Framework

3 Legs

- **_Leg 1: Superhighway & On-/Off-Ramps_**
  Makes up the Central Core of the Shared
  Infrastructure for the State of Michigan

- **_Leg 2: Local Networks_**
  The foundation for regional cooperation
  and access to the statewide core

- **_Leg 3: Un-served and Under-served_**
  Assists in providing lower cost access
  to the individual citizen and business
  owner, in addition to public entities

*It is the intent to look to the private sector to provide these legs
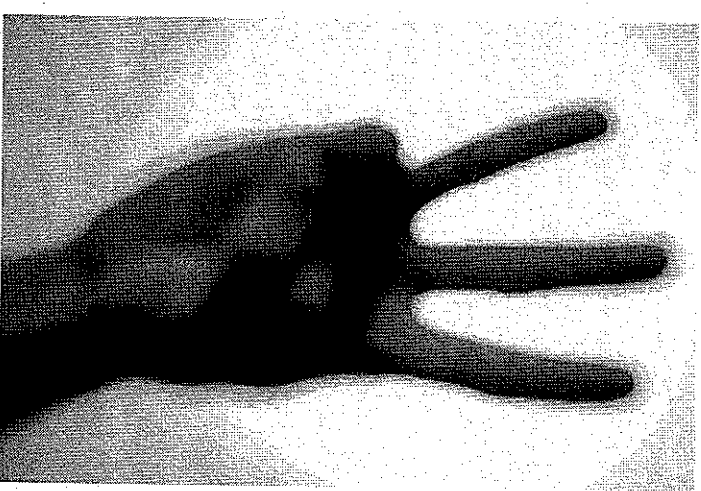
Michigan's Statewide Framework

2 Principles

- **Principle 1:** Reduce Ongoing Operating Expense (OPEX) while significantly increasing capacity, through Shared infrastructure and services

- **Principle 2:** Enable carriers/ISP's to increase reach, and enhance service for Michigan businesses and citizens
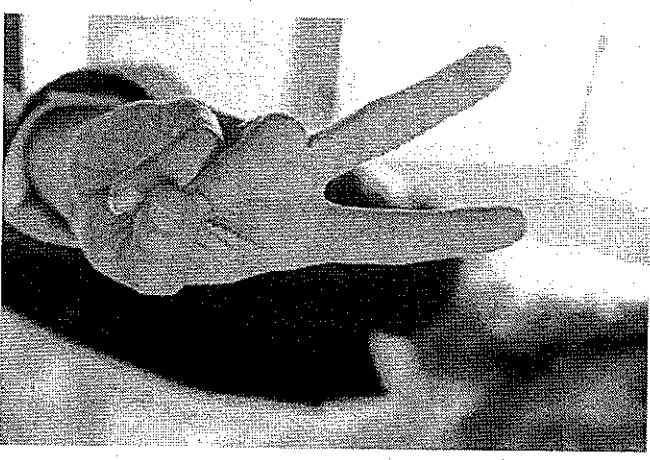
This effort is NOT intended to disable or replace existing services, but enhance carriers/ISP's access to lower cost infrastructure in every corner of the state.

Michigan's Statewide Framework
1 Unified Broadband Vision for Michigan

A single unified broadband vision for Michigan will:

- Lower costs, increase capacity for state/local government

- Lower costs, increase access for businesses and citizens

- Enable distance learning advancements through collaboration and research across the K-12 community

- Reduce healthcare costs by making electronic sharing of health information possible and enabling home healthcare

- Globalize our people and resources

- Strengthen critical infrastructure and public safety

Developing Michigan's Broadband Framework

Statewide Broadband Planning Group developed the framework...

◆ State Departments: Information Technology, Education, Transportation, History Arts & Libraries, Community Health, Energy Labor & Economic Growth and the Public Service Commission

◆ Others: KPMG, Michigan Public Health Institute, Executive on Loan (Cisco), Michigan State University and Convergent Technologies

◆ Consulted with many vendors and local governments

◆ Continuing discussions with vendors and local governments

Michigan's Broadband Framework

Leg 1: Statewide Superhighway

25% Governmental Use

50% Open Access to ISPs

25% Private Vendor Owned

25% Governmental Use

50% Open Access to ISPs

25% Private Vendor Owned
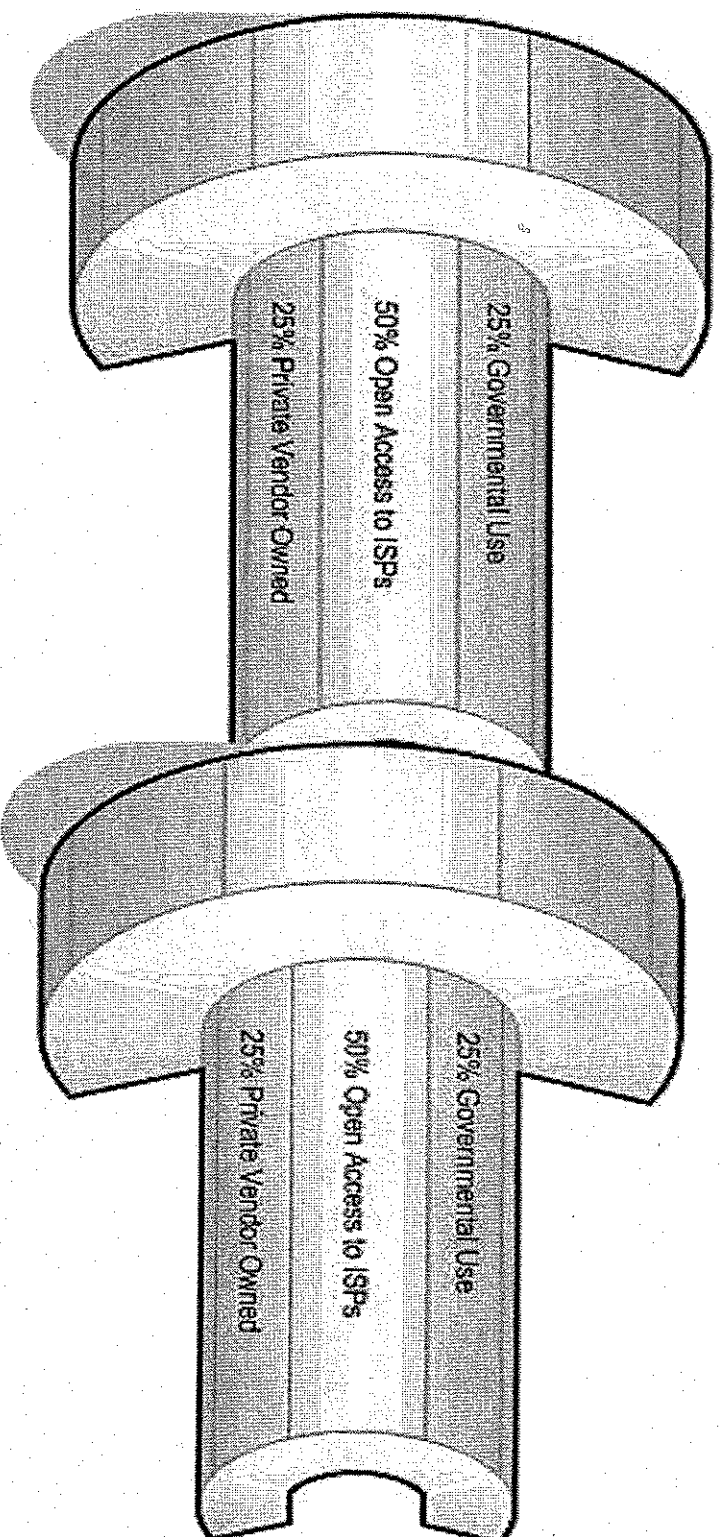
Michigan Information
Superhighway

On/Off Ramp to
County Seat

Michigan's Broadband Framework
Leg 2: Local Networks

Connection
Back to
Michigan
Information
Superhighway

On/Off Ramp to
County Seat

Fiber into the Local Grid of
Other Regional Networks

County/Regional Network

Health Clinics

Community School

Public Library

Tribes

State Office

City/Village/Township

State Office

Hospitals

County Office
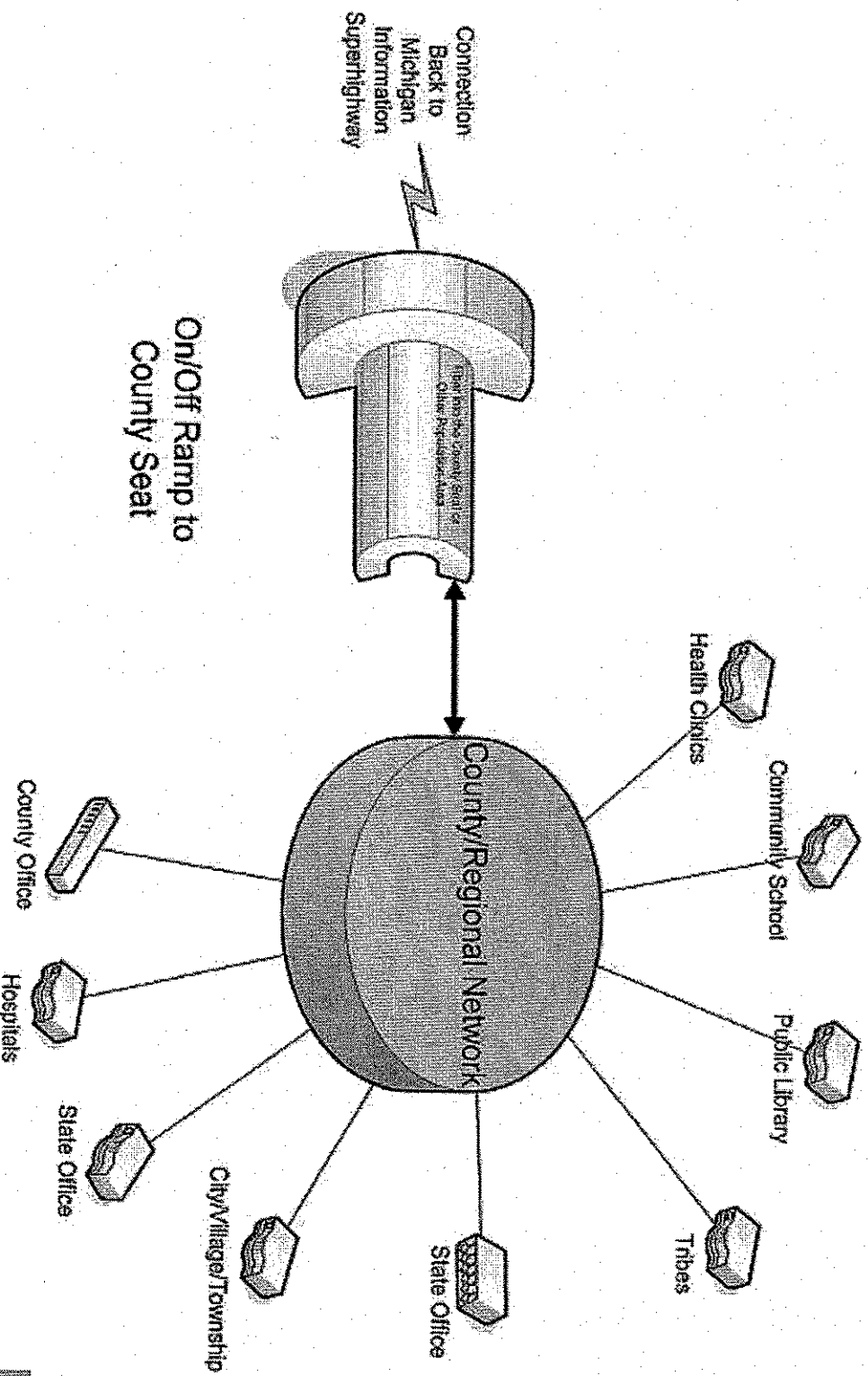
Michigan's Broadband Framework
Leg 3: Un-served & Underserved

Michigan Information Superhighway

State Government Use

50N Open Access to ISPs

2nd Private Vendor Owned

Broadband Services to Citizens and Businesses by Other Technology Solutions

Fiber to the Home and/or Fiber to the Business by Regional ISPs

Wireless ISPs to Business and Citizens in Unserved Areas
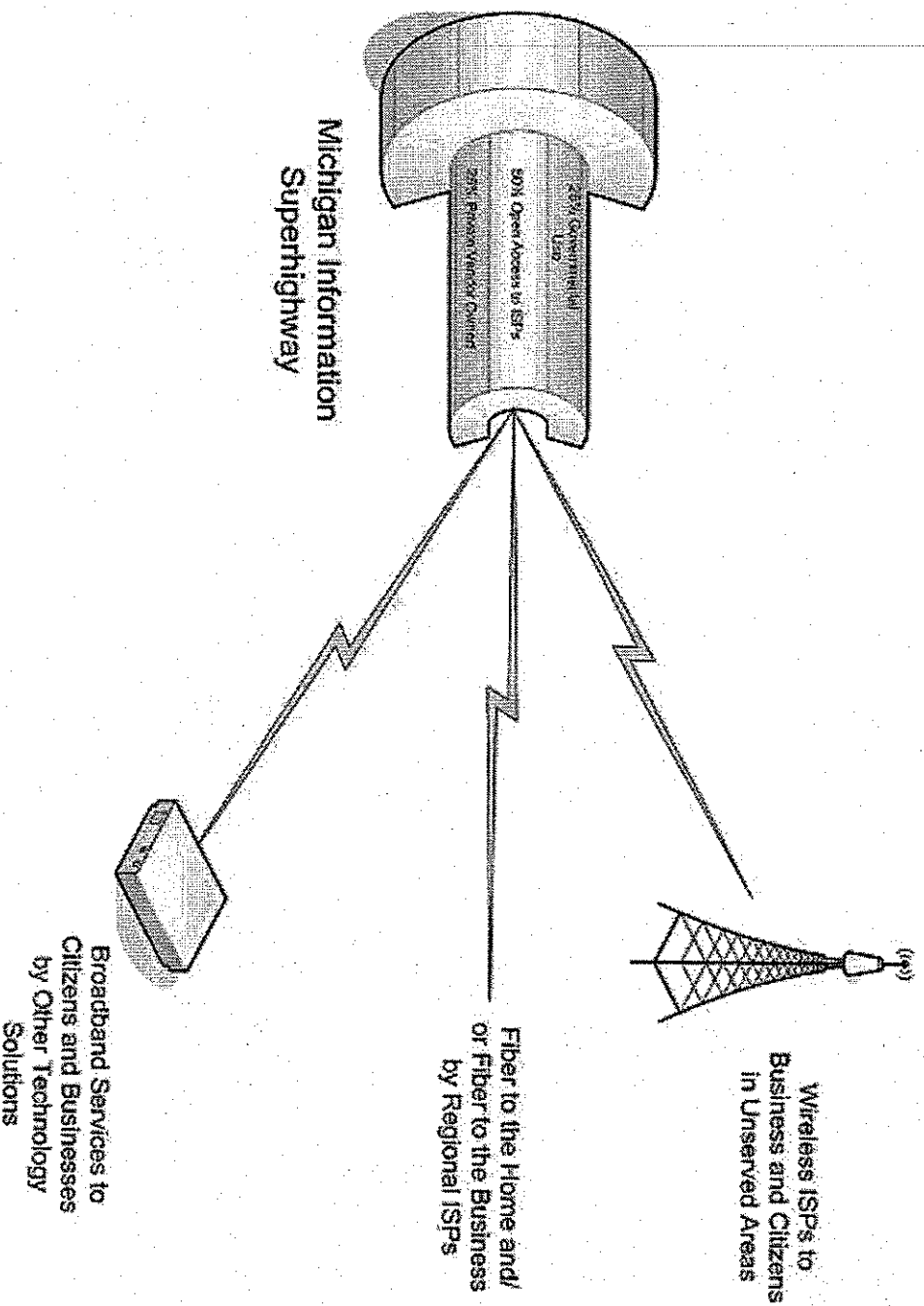
Michigan's Broadband Framework
Legs At-a-Glance

Michigan's Broadband Framework

Michigan Information Superhighway

On/Off Ramp to County Seat

Connection Back to Michigan Information Superhighway

On/Off Ramp to County Seat

+

+

Michigan Information Superhighway

Wireless ISPs to Business and Citizens in Unserved Areas

Fiber to the Home and/or Fiber to the Business by Regional ISPs

Broadband Services to Citizens and Businesses by Other Technology Solutions

Benefits Abound

- Economic development and job creation

- Better government (State and Local); reduced network and telecom costs and application sharing

- Educational and administrative application sharing

- Public access for retraining, small business and employment

- Greening tools for eCommerce and distance learning

- Connectivity for unserved/underserved citizens/businesses

- Health IT, telehealth and telemedicine capabilities

- Homeland security at border crossings and critical infrastructure across the state's roadways and bridges

Questions...
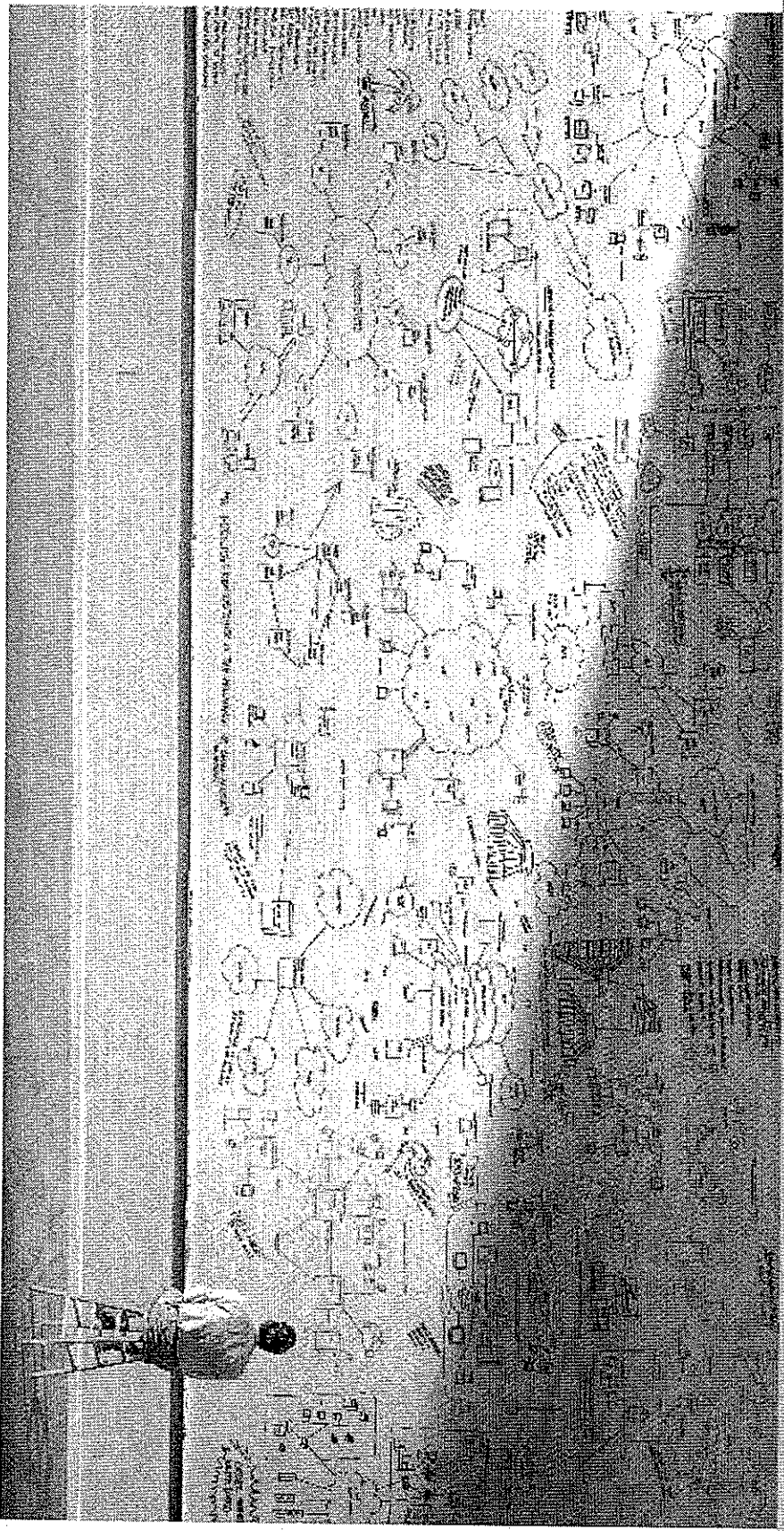
... and Thank You for your Time today!